South Coast Transit Priorities

Project Description

The South Coast Transit Priorities project accommodates critical transportation needs for the cities of Santa Barbara and Carpinteria as well as the unincorporated area of Goleta. The city of Santa Barbara project will provide mitigation of increasing congestion at key intersections. For the city of Carpinteria it will implement a shuttle system that will provide residential neighborhoods with transit access to the downtown. Further, the project will accommodate an immediate need for alternative transportation modes in western Goleta. Additionally, the project will provide electric buses as replacements for 13-year-old mid-size Villager diesel buses in the current MTD fleet. Based on peak hour counts performed by the City, and Level of Service (LOS) analysis performed by the Santa Barbara County Association of Governments (SBCAG), the intersection of Highway 101 South bound Off-ramp/Mission Street is currently operating at LOS E. Therefore, the City must prepare a deficiency Plan. Similarly, a viable alternative to automobile use by Mesa residents to the downtown area is needed. Carpinteria, as well, is faced with increased congestion on Carpinteria Avenue because residents must rely on the automobile as their only mode choice. Continuous growth in western Goleta has led to unacceptable traffic congestion at key intersections on Highway 101 and on main surface streets. A Level of Service (LOS) analysis conducted by the County indicates that peak hour trips (PHT's) must be reduced in order to meet minimum LOS requirements. The Goleta Transportation Improvement Plan (GTIP) identifies alternative transportation, including new electric shuttle service and expansion of local trunk and express lines, as key components of congestion mitigation. A further element of the project is the addition of enhancements to transit infrastructure in and around the downtown area of Santa Barbara and Anacapa Streets (downtown corridor) in order to attract new riders and better serve existing riders. The final element of the project is replacement of MTD's obsolete fareboxes with new Transit Management fareboxes.

The South Coast Transit Priorities project includes the following components:

- *The Santa Barbara Electric Avenue*, which consists of the Westside/Eastside Electric Shuttle (lines 1 & 2), the Crosstown Electric Shuttle, and the Mesa Loop Electric Shuttle;
- An Enhanced Downtown Transit Corridor;
- Implementation of the Goleta Old Town/Airport/UCSB Electric Shuttle;
- Expansion of trunk and express service between Downtown Santa Barbara and western Goleta;
- A Feeder/Shopper Shuttle for the city of Carpinteria;
- Replacement of MTD's mid-size diesel buses with mid-size electric buses;
- Replacement of MTD fareboxes with advanced technology fareboxes.

Each component is described later in this document. While each project has individual benefits, it is the sum of these benefits that is expected to affect a successful cultural shift in the way the public views transit and thereby provide a viable alternative to the automobile in terms of transportation needs.

This project represents a joint effort between the County of Santa Barbara, the cities of Santa Barbara and Carpinteria and the Metropolitan Transit District (MTD) to implement numerous policies and community desires that for many years have remained mere ideals. The individual project components, combined with the replacement of diesel buses with electric powered buses and modernized fareboxes, are tailor-made to meet the criteria and intent of the Transportation Equity Act of the 21st Century (TEA-21). The combined projects implement community plans; address roadway congestion with a long-term sustainable approach; and expand transit options, crucial for increasing transit use and reducing emissions.

Expected Increases in Transit Ridership

Large increases in ridership in Goleta, Santa Barbara, and Carpinteria are anticipated due to the attractiveness of electric vehicles together with new and more frequent service. The net result will equate to fewer travelers in automobiles as transit becomes a more viable mode. The city of Santa Barbara and MTD demonstrated the public's preference for uniquely designed electric vehicles when they were introduced to the Downtown-Waterfront Shuttle service in 1991. The combined attractiveness of quiet, emission-free electric powered vehicles boosted ridership 1,000% compared to that of the diesel buses that they replaced.

In the City of Santa Barbara, the Westside/Eastside shuttle will arrive twice as often (every 7½ minutes) during peak hours as the current service, virtually eliminating the need for users to refer to a published bus schedule. Both the Crosstown and Mesa Loop routes are designed to reduce trip time on the bus significantly when compared to current service for these two heavily populated areas.

In the city of Carpinteria, a prototype summer shuttle service in 1998 operated on a limited route. City officials considered the shuttle a success as it carried an average of 1,000 passengers per week, eliminating an estimated 3,000 automobile trips from the downtown during its eleven weeks of service. This project will serve a significantly larger area in Carpinteria than its summer predecessor.

Similarly, in Goleta the project provides for a new shuttle service to link the redeveloped Old Town to the Airport and UCSB. Additionally, MTD's successful west Goleta trunk and express lines will be modified. The current line 6 will be extended from Old Town Goleta to the Camino Real Marketplace. Mid-day and later evening service will be added to the current lines 12 and 24 express buses serving Santa Barbara, Goleta, and UCSB. The combined projects will generate large increases in transit ridership as residents of Santa Barbara and western Goleta will be provided with more frequent and convenient service to major activity centers; commuters, shoppers and youth traveling to new recreation facilities will benefit from the project.

Targeting Regional Congestion

Santa Barbara City's *Electric Avenue* will specifically target peak hour congestion at four freeway interchanges: Mission, Carrillo, Castillo and Garden Streets. Congestion levels caused by vehicles crossing these interchanges will be reduced by bridging the Westside, Eastside and Mesa neighborhoods with attractive and frequent electric transit service with trip times that will be competitive with the automobile. The Carpinteria shuttle will target congestion on Carpinteria Avenue and Casitas Pass intersections. In Goleta, the new shuttle service and expanded trunk/express will target both peak hour and mid-day congestion at the western end of Hollister Avenue, particularly the Fairview intersection and the Camino Real Marketplace at the Storke intersection. MTD expects that the combined Santa Barbara, Carpinteria, and Goleta projects proposed in this application will remove over 1,300,000 automobile trips annually on the South Coast.

Replacement of Diesel Buses and Fareboxes

The MTD requires replacement of its 13-year-old mid-size Villager diesel bus fleet. It will take over two years for the replacement buses to arrive and be placed in service, making them over 15 years old at the time of actual replacement. The Villager buses are equipped with diesel engine models and other critical parts that are no longer manufactured. Should they go unreplaced, it is likely that these buses will be removed from service as unreplaceable parts fail. The service they provide will, out of necessity, be discontinued. Their timely replacement allows uninterrupted service and deployment of emission free buses into South Coast neighborhoods. MTD's fareboxes are 12 years old. Like the Villager buses, MTD is unable to replace parts, the fareboxes are not sufficiently secure, do not efficiently process paper money (for the $1.00 fare) and their data recording capability is no longer satisfactory.

Providing Cleaner Transit

In addition to reducing congestion and increasing the transit system's capacity to move people, the components of this project as well as the MTD bus replacement plan will eliminate emissions from the diesel buses that currently serve these areas. Seventeen diesel buses will be replaced with 41 electric buses resulting in significant emission reductions. This reduction of emissions represents only the beginning, as this project will launch an ever-increasing effort to eliminate more diesel buses from the MTD fleet.

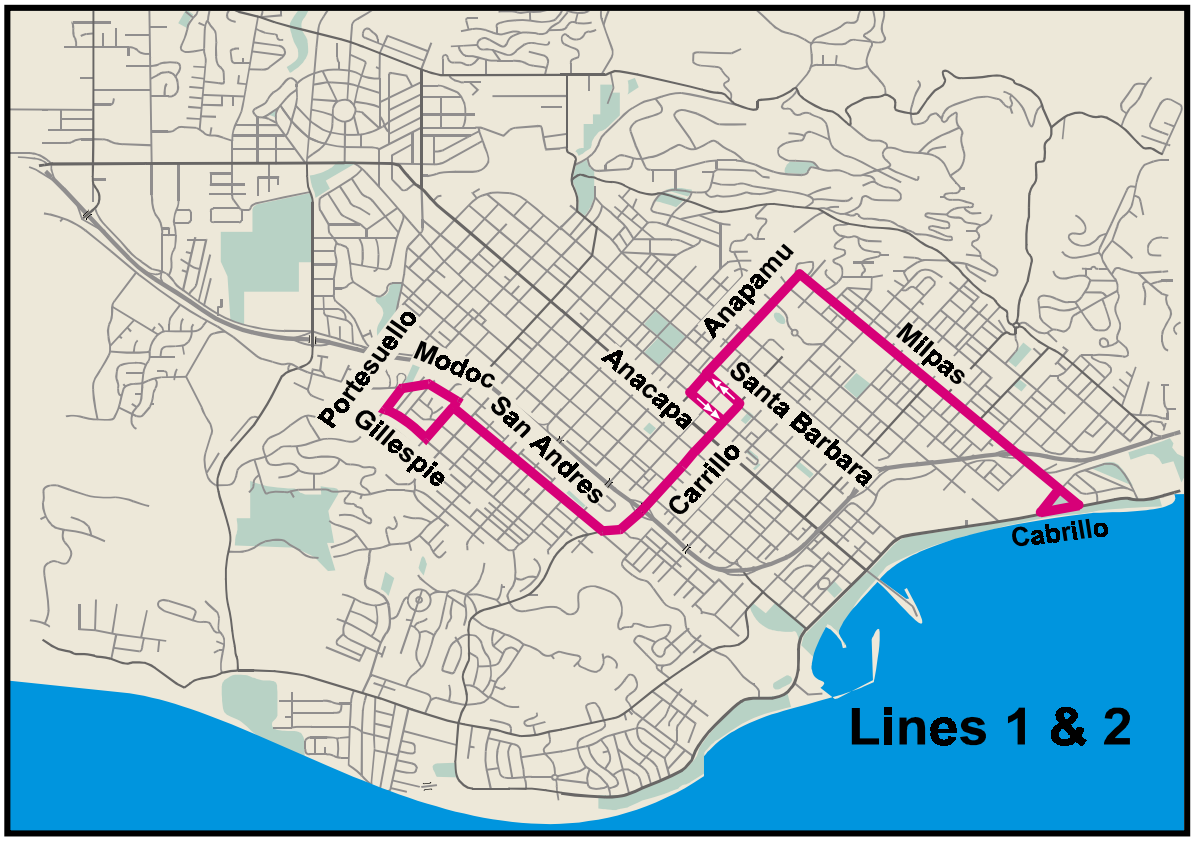
Project Scope

Westside/Eastside Electric Shuttle (MTD Lines 1 & 2)

The existing bus service extending from the Westside to the Eastside via the Downtown area on MTD's lines 1 and 2 is already a proven success with high ridership throughout the day. Transit users pay for over 60% of the operation of these routes (known as the farebox return). The conversion of these routes to electric vehicles in combination with increased frequency of service will provide a viable alternative to driving for travelers going to the Downtown or traveling east to west, or vice versa.

In restructuring the service, lines 1 and 2 will be converted to electric vehicles. The western end of line 1 will operate on San Andres in both directions; the eastern end of line 2 will remain on Milpas and continue as far as Cabrillo Boulevard. On weekdays, headway's (frequency of service) will be every 7 ½ minutes (as opposed to every 15 minutes) during the hours of 7:00am to 6:00 PM and every 20 minutes for the balance of the service day. On Saturdays, headway's will be every 20 minutes and on Sundays every 30 minutes.

Project Capital: nine 30' emission-free electric buses will replace the five 40' diesel buses currently assigned to lines 1 and 2.

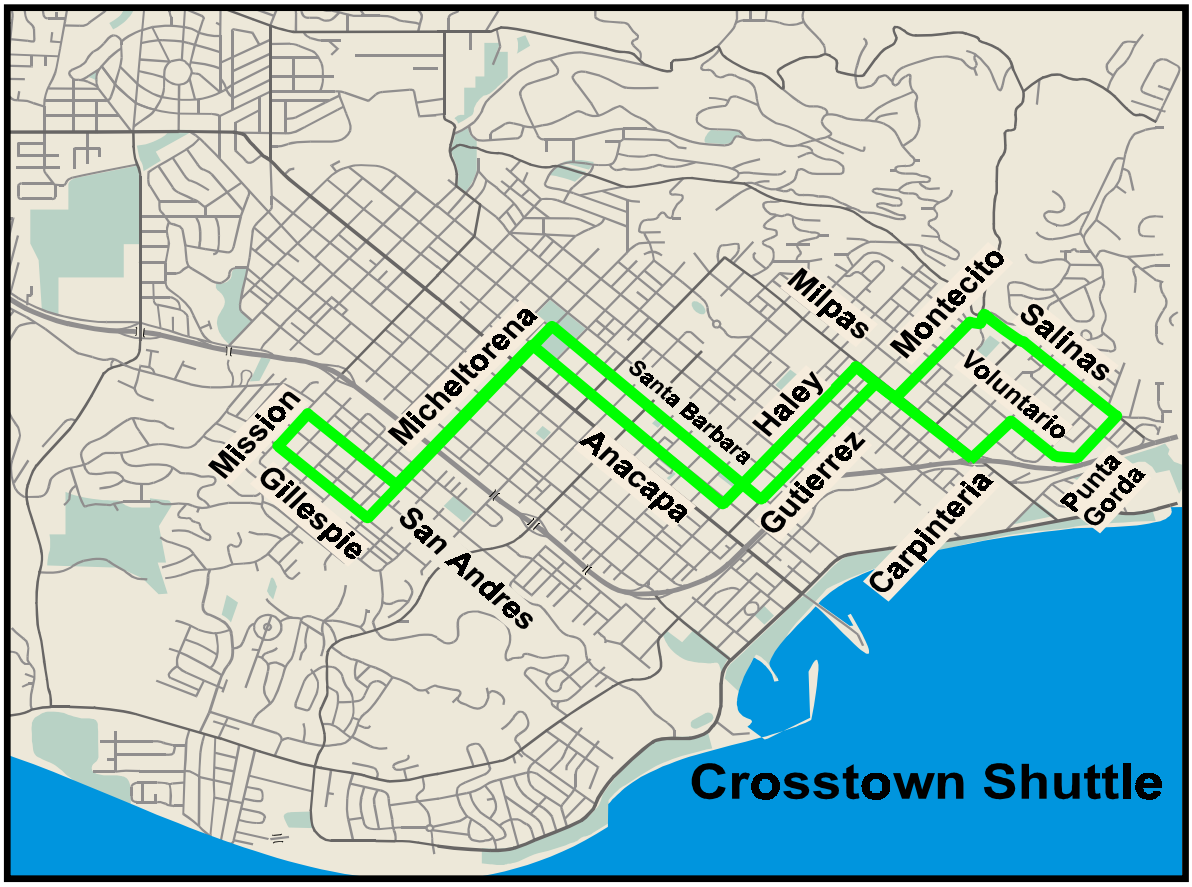


Crosstown Electric Shuttle

This will be a new route providing direct service between East and Westside residential neighborhoods via Micheltorena Street, Downtown, Haley and Gutierrez Streets. Electric shuttles linking Westside neighborhoods and stores, Downtown, Eastside neighborhoods and stores, and East Beach will serve the route. This new Micheltorena corridor will establish: (1) an ultra quick link between the westside neighborhoods located adjacent to each side of US101; (2) a faster trip from the westside to downtown jobs and shopping by way of Anacapa and Santa Barbara Streets; (3) a quick and easy connection (2/3 minute trip) to express and trunk service on Chapala and State Streets at Micheltorena; and (4), a faster trip between the Westside and Eastside, two large residential areas with common interests.

During weekdays, service spans will be from 6 AM to 10 PM with 20-minute headways. On Saturdays the service will run every 30 minutes from 6:30 AM to 9:30 PM, and on Sundays every 30 minutes from 7 AM to 9 AM. These service spans will reduce congestion by accommodating commuters and shoppers all week. On weekends the service will enable residents to enjoy the shuttle service for dining and recreational needs as well, freeing-up valuable spaces in the Downtown parking lots.

Project Capital: Four 30’ emission-free electric buses.



Mesa Loop Electric Shuttle

This service will link the Mesa to downtown with electric shuttle service. It will serve major markets consisting of Santa Barbara City College, Shoreline Park, Mesa Center, and the Downtown corridor. The Mesa Loop will replace the current MTD line 17. With buses running every 15 minutes on weekdays, this shuttle will have great appeal to both shoppers and commuters as they will have no need to waste time or money on downtown parking. The span of service on weekdays will be from 6 AM to 7:30 PM. With 30-minute service on weekends, shuttles will run from 7 AM to 6 PM on Saturdays and 9 AM to 6 PM on Sundays.

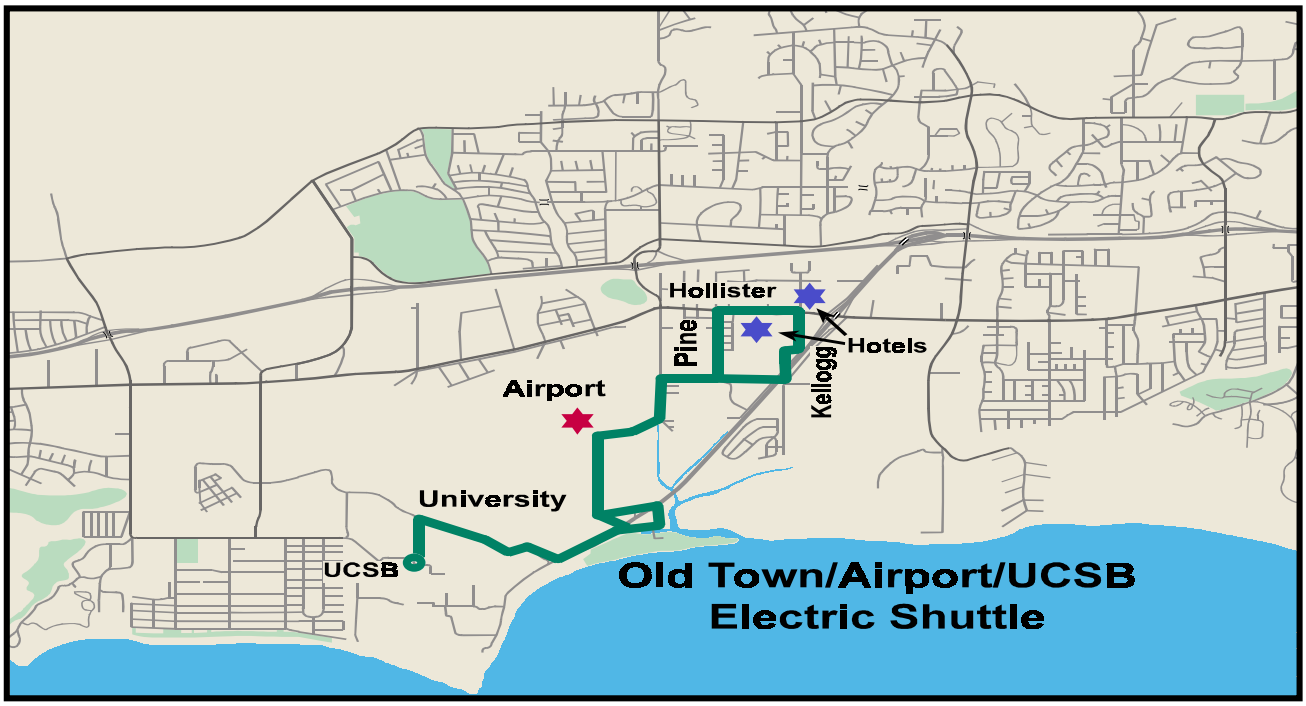
Project Capital: Five 30’ emission-free electric buses.

Old Town/Airport/UCSB Electric Shuttle

This new shuttle route will provide direct access between the redeveloped Goleta Old Town, the Airport, Goleta Beach and UCSB. The Airport will be linked with short trip service to new hotels and commerce in Old Town to the east, and the University to the west. Visitors, commuters, students and shoppers alike will benefit from the convenience of the shuttles. The service between the airport and old town will be facilitated by the new Patterson/Ekwill road extension over to Fairview. Service for the airport will board and depart from the airport driveway, directly in front of the terminal. Passengers will board and depart UCSB at the new ceremonial entrance off of University Road. The electric shuttles will allow a high volume of travelers, who would otherwise drive, hire a cab, or rent a car, to reach key Goleta destinations in emission free vehicles.

During weekday peak hours, the shuttle headways will be every fifteen minutes; during non-peak hours and on weekends shuttles will run every 30 minutes. Service spans on weekdays will be 7AM to 7PM, and on weekends from 10AM to 6PM.

Project Capital: Four 30’ emission-free electric buses.



Expanded Trunk/Express Service

The existing Line 6 State/Hollister Local will be re-routed from its current Fairview Center end destination to continue west from Downtown Goleta to the Camino Real Market Place.

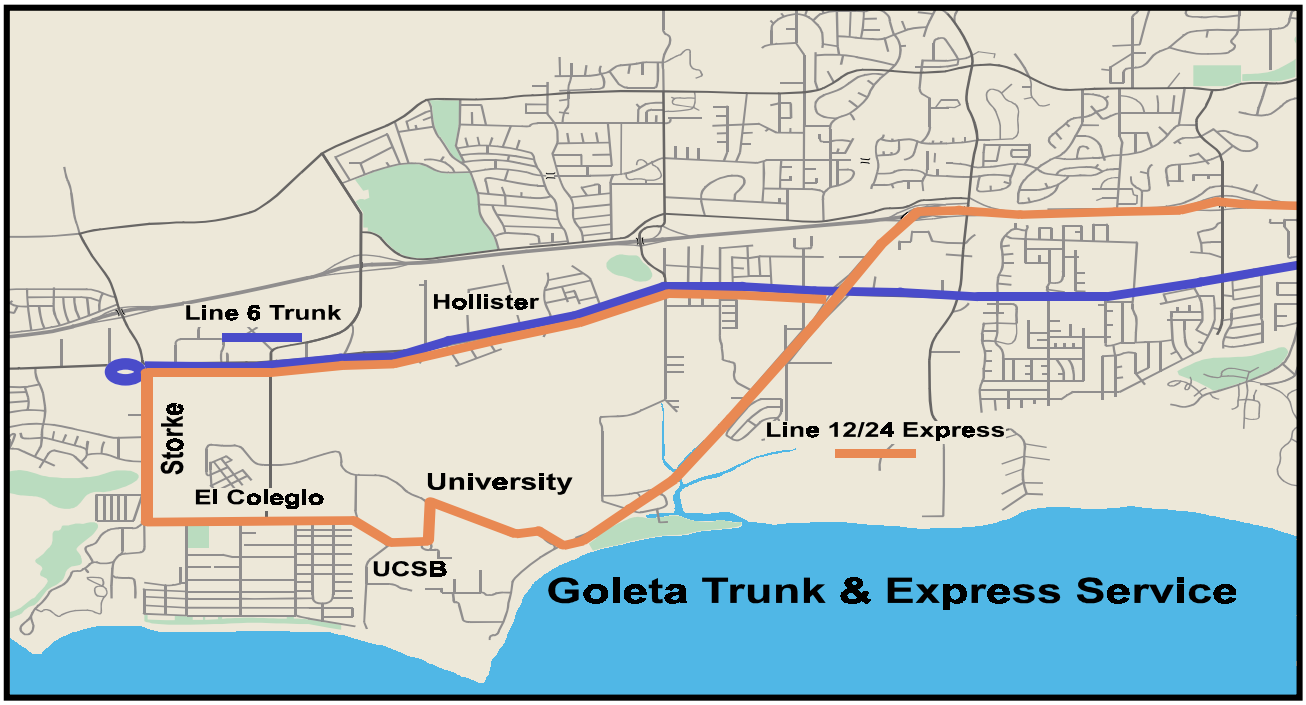
The existing Line 12 Goleta Express and the Line 24 UCSB Express will be upgraded to provide constant 30-minute headway's all day.

A combination of the expanded trunk and express service will provide constant 15-minute headway's during peak hours between Old Town Goleta, the Hollister corridor, and the Camino Real Marketplace. The Downtown Santa Barbara end of the line will be extended to Anacapa Street returning via Ortega and Santa Barbara Street. This will enable riders destined for Goleta to board on lower State Street without having to transfer, helping to satisfy the current demand for more service and improved connectivity with other lines. Later service will be added in the evenings and on weekends to serve the travel needs for workers on late shifts and those using the bus for recreational or entertainment events. This is of particular importance with respect to the youth playing fields and movie theaters developed as part of the Camino Real Marketplace.

No additional buses will be required for this expanded trunk/express service if the *Electric Avenue Project* is adopted by SBCAG. Under that project, three (3) clean burning 40' diesel buses currently assigned to MTD's lines 1 and 2 will be replaced by mid-size electric's. The three clean burning diesels can therefore be reassigned for expanded trunk/express service.

The expanded trunk service will operate on weekdays from 5:30 AM until 9:00 PM PM, on Saturdays from 6 AM to 7:00 PM and Sundays from 6:25 AM to 7:00 PM. Express buses will serve these important activity centers from 6 AM to 8:00 PM on weekdays and 9 AM to 8 PM on weekends. Headways on Hollister between Fairview and Storke currently at 30 minutes in peak hours and 60 minutes in the non-peak will improve to 15 minutes throughout the service period.

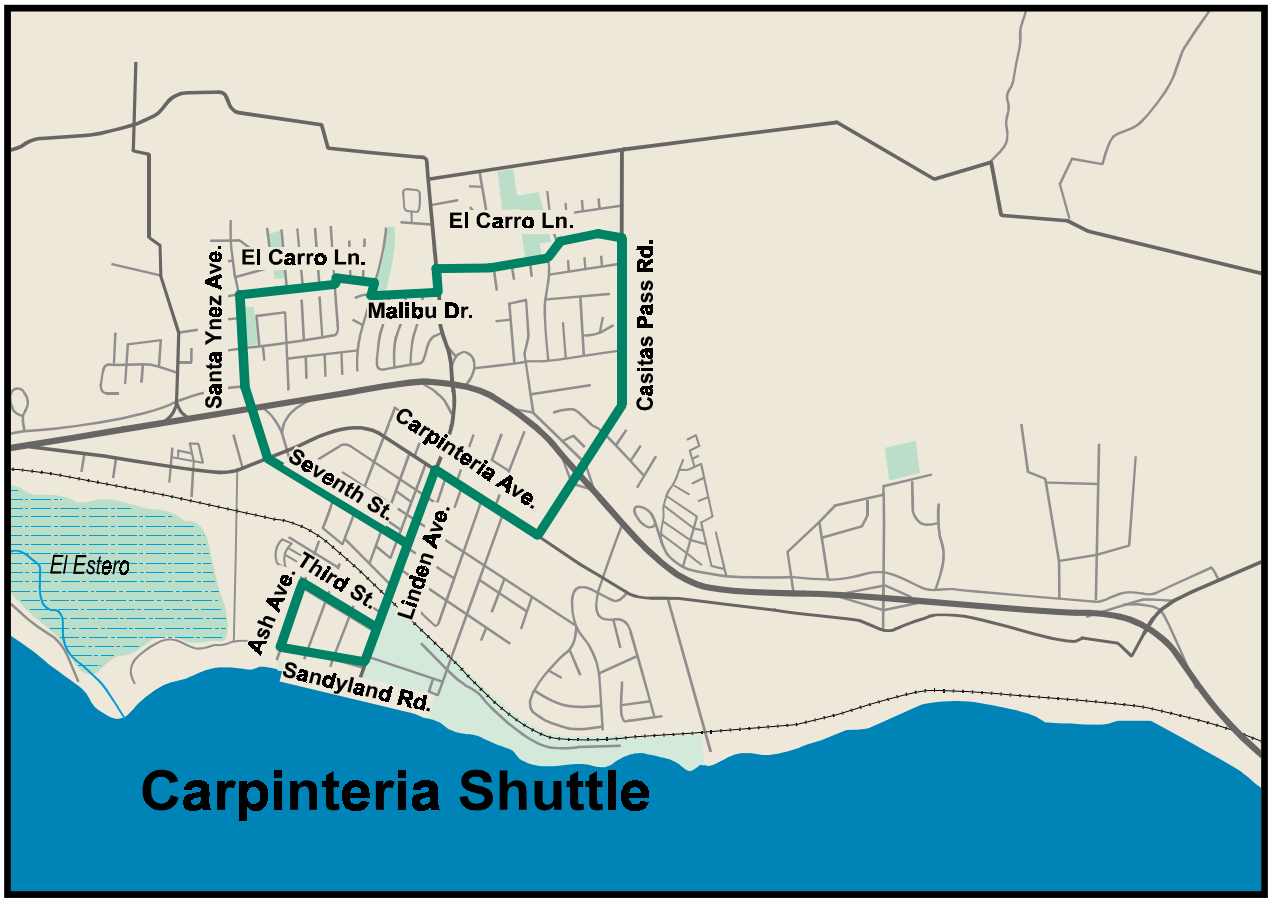
Project Capital: None required (see above paragraph).



Carpinteria Feeder/Shopper Shuttle

The Carpinteria shuttles will circulate within the Carpinteria city limits. Routes are designed to provide access via transit to shopping and city beaches, link neighborhoods to inbound and outbound express and local bus service at key bus stops, and mitigate traffic congestion and parking shortages in the downtown area. During weekdays, service spans will be 7 AM to 5 PM with shuttles operating daily every 15 minutes for four hours and every 30 minutes for six hours. On weekends shuttles will operate every 30 minutes from 10 AM- 5 PM.

Project Capital: Two 22’ emission-free electric shuttles.



Enhanced Downtown Corridor

SuperStops, or enhanced bus stops, will be located on the new Downtown Santa Barbara Transit Corridor: Anacapa and Santa Barbara Streets, encompassing the seven blocks between Ortega Street at the south end and Sola Street at the north end. The bus stops will have a unique design consistent with Downtown architecture, and will feature kiosks with innovative multimedia technology to provide an actual map of the service area. "Nodes" incorporated into each kiosk will be built from actual photographs of the *Electric Avenue* route. Each node can provide a full 360-degree panoramic movie whose viewpoint can be moved by simple touch of the user's finger on the screen. A user will be able to "walk" the electric avenue going from node to node to see the physical site, not a cartoon representation. Unique commands, or "Hot Spots", will allow the user to access specific schedules, maps, trip planning help, directories, menus, and other sites of interest.

The objective of the kiosk is to present MTD bus service as a means to connect the user with an activity, the principle interest of a traveler. The kiosk allows the user to select, or be offered, something to do and how to get there to do it. The "virtual walk" in the kiosk familiarizes the user with where they are going before they get there.

Each of these features will help the public to overcome concerns about using public transit. The user feels more secure about their transit trip and where the bus will leave them. The *SuperStops* will be linked to buses in-route via a Global Positioning System (GPS) which will provide a clear idea of when the traveler will be able to board a bus and get to their destination.

Project Capital: Four enhanced bus shelters, including street furniture, lighting and electronic kiosks.

Replacement of Mid-size Diesel Buses

The MTD must replace its 20 mid-size Villager diesel buses. Seventeen of these replacement buses will be funded in this project, with the balance funded by other sources. The replacement buses will be zero emission electric buses deployed to current MTD routes in Santa Barbara neighborhoods as well as other South Coast neighborhoods. The anticipated cost of each replacement bus is $275,000. This includes the cost of a new farebox, which due to their age and obsolescence, must also be replaced.

Project Capital: Seventeen 30' emission-free replacement electric buses and one spare.

The configuration of these vehicles will be identical to the configuration of the vehicles proposed for the Westside/Eastside Electric Shuttle, Crosstown Electric Shuttle, the Mesa Loop and Old Town/Airport/UCSB Electric Shuttle projects. The configuration of the two Carpinteria shuttles will be identical to popular open-air trolley designed shuttles serving the Downtown/Waterfront route in Santa Barbara. Combined, the replacement and new service will add 41 electric vehicles to the 18 electric vehicles currently in the MTD fleet.

Replacement of Fareboxes

MTD's fareboxes are 12 years old. Like the Villager buses, MTD is unable to replace parts, the fareboxes are not sufficiently secure, do not efficiently process paper money (for the $1.00 fare) and their data recording capability is no longer satisfactory. The rising incidence of repairs to the 13-year old system causes disruptions of bus service, inconvenience to riders, and higher costs to the system. As interaction with the farebox is usually the first point of contact for the passenger, creating a positive experience is critical to retain and attract riders.

Improvements in technology have significantly enhanced the capabilities of the transit farebox. New, state-of-the-art electronic fareboxes on MTD buses will provide marketing opportunities to selectively target, monitor, and expand transit ridership. MTD's new fareboxes will allow the use of "Smart Cards" for employer ID programs and other promotional opportunities to increase ridership. The anticipated cost for each farebox is $9,000. With fleet needs of 55 fareboxes the total cost requirement will be approximately $500,000.

Project Capital: 55 replacement fareboxes

PROJECT COST ESTIMATE

Capital Costs:		
> Seventeen (17) electric replacement buses @ $275,000	$	4,675,000
> Twenty-two (22) electric buses @ $275,000 for the Electric Avenue, Crosstown Shuttle Mesa Loop and Old Town/Airport/UCSB	$	6,050,000
> Two (2) electric shuttles @ $170,000 for Carpinteria	$	340,000
> Four (4) Superstops @ $100,000	$	400,000
> Fifty-five (55) enhanced fareboxes @ $9,000	$	500,000
Total Capital	**$**	**11,965,000**
Operating/Maintenance Costs:		
> MTD Bus Replacement Fund	$	800,000
> Marginal Costing Rates	$	683,000
> Farebox Return	$	1,371,000
> City of Santa Barbara Contribution	$	260,000
> City of Carpinteria Contribution	$	13,000
> County of Santa Barbara Contribution	$	154,000
Total Operating/Maintenance	**$**	**3,281,000**

PROJECT SCHEDULE

Vehicles and Service

- Route design is complete and incorporated into the South Coast Transit Plan.
- Route design has been reviewed and approved by the City of Santa Barbara Planning Commission and the City Council, and the Santa Barbara County Planning and Development Department.
- Future Operations
  - Funding of MTD bus replacement capital needs with Congestion Mitigation and Air Quality funds (CMAQ) will enable the service to operate in the future (not restricted by the three year CMAQ period). The bus replacement funds will be applied to operating costs. Those funds, combined with lower overhead costs from amortization of administrative costs, farebox revenue, and contributions by the Cities of Santa Barbara and Carpinteria and the County of Santa Barbara preclude the need for CMAQ operating assistance for this project.
- MTD is in the process of evaluating the latest state-of-the-art battery technology.
- Electric vehicle performance criteria will be complete and ready for incorporation into procurement specifications when project authorization is received.

Enhanced Bus Stops (SuperStops)

Prototypes of the electronic kiosks described above under Project Scope have been built and introduced for use on MTD's Downtown-Waterfront Shuttle route. The prototypes are located indoors. The next step is to develop the long-term feasibility of the system in an outdoor environment.

Fareboxes

New fareboxes consistent with MTD data collection and marketing needs are available in the current marketplace and can readily be delivered and installed when the new buses arrive.

PROJECT SCHEDULE

	Date (month/year)
Begin Project:	
Bus Procurement	*October 1999*
Bus delivery	*June-October 2001*
Procure Fareboxes	*October 1999*
Farebox delivery	*October 2000*
Develop Kiosks	*October 2000*
Design and build Super Stops	*October 1999- October 2000*
Begin Service	*September 2001*

Project Benefits

Emission Reduction

All of the new buses proposed in this application are zero emission electric vehicles. The 17 electric replacement buses displace old diesel buses on current MTD routes; the new service implemented for the Electric Avenue and the Carpinteria and Goleta shuttles will be served entirety by electric buses. The expanded trunk/express buses will be new clean-burning diesel buses diverted from other service (see Project Scope).

Transportation System Preservation

The projects in this application keep MTD's highly successful current service[1] intact while implementing additional service to attract new users to transit. The projects in this application improve circulation in the new transit corridor and preserve a transit presence in Downtown Santa Barbara. Shuttle routes planned for Carpinteria will implement a new service currently not available while supplementing existing service on MTD's line 20. The Old Town/Airport/UCSB shuttle will effectively enhance the existing service provided by MTD line 11. For those commuting longer distances the expanded trunk/express service promotes alternative transportation for traveling to the Hollister corridor and the Camino Real Marketplace. Additionally, the proposed projects promote alternative transportation and provide new amenities for transit users at downtown Santa Barbara Super Stops.

[1] MTD was recognized by the University of North Carolina (UNCC) Center for Interdisciplinary Studies as one of the two most effective transit operators in California and in the top ten nationwide. The criteria for rating include total revenue per passenger, consumption dollars, production efficiency, average fare per trip, public subsidy as a percent of revenue population served per vehicle and service area per vehicle.

Congestion Relief

Santa Barbara's Westside/Eastside Shuttle and the Crosstown Shuttle will mitigate the increasing congestion at key intersections in the city of Santa Barbara. Specifically, the project will target the intersection of Highway 101 South bound off-ramp/Mission Street, which is currently operating at LOS D (based on peak hour counts performed by the City, and LOS analysis performed by the Santa Barbara County Association of Governments). Accordingly, these two Santa Barbara shuttle projects are important elements of the City's Congestion Management Plan (CMP) for this interchange.

In Goleta, the Old Town/Airport/UCSB Shuttle and Expanded Trunk/Express service will mitigate the increasing congestion at key intersections in western Goleta. Specifically, the project will target the intersections of Fairview/Hollister and Storke/Hollister, which are projected to exceed acceptable Level of Service (LOS) levels.

The Carpinteria shuttles will provide relief to the congestion being experienced at Capinteria Avenue and Casitas Pass intersections.

Preservation of Environment

While a heavy reliance on the automobile can result in an overreliance on a finite commodity (energy) and exacerbate concerns over air quality, public transit has been cited in the Santa Barbara Circulation Update, Goleta Transportation Improvement Plan (GTIP) and Carpinteria's Vision to 2020 as means of sustaining the quality of life on the South Coast. The projects proposed herein offer transit as a solution to traffic impediments as opposed to building more roads and parking lots. Zero emission transit vehicles will reduce air pollution. The intermodal connectivity of the proposed projects will enhance walking and bicycling as viable travel modes. The routes are designed to allow commuters, shoppers and others to use transit as a convenient alternative to their automobile. Fewer cars will help to preserve local roads and preclude building more parking lots and widening intersections. Collectively, features of the projects in this application support the land use and sustainable community goals for the South Coast.

Alternative Modes

The routes, frequency of service, transit amenities and vehicle attractiveness of these projects provide the highly populated areas of the region a true mode choice. The success of the Downtown/Waterfront Electric Shuttle Service offers evidence that Santa Barbara has changed its perception of public transit. Electric vehicles combined with the convenience of increased service and levels of comfort available at Super Stops offer travelers a viable alternative to the automobile as a mode choice.

Project consistency with regional and community plans

Regional Transportation Plan (RTP)

The projects in this application are in accordance with policies adopted in the 1999 RTP, specifically Policies T-1 through T-4. The projects will become a foundation for improving regional transit service in the South Coast, making transit a viable option to a significant portion of the population. They represent a crucial and timely opportunity to expand transit service beyond its current market, the transit dependent, to a multi-modal transportation system that is a competitive alternative to the automobile.

Santa Barbara Circulation Element, Carpinteria Vision to 2020, Clean Air Plan, Goleta Transportation Improvement Plan (GTIP) and the South Coast Transit Plan

The City of Santa Barbara Circulation Element Update (CEU) has a goal *"to increase the availability and use of transit".* The CEU describes transportation improvements including smaller, quieter, cleaner, and more frequent service with electric shuttles that connect neighborhoods with major commercial and activity centers. Shuttle service for Carpinteria will support community goals of maintaining a balance between effective growth and open space through sensible area-wide planning and ensure the small town, rural identity of the city. The Clean Air Plan calls for service expansion and

restructuring of routes. The GTIP includes provisions for alternative transportation improvements including new shuttle service. The South Coast Transit Plan (SCTP) which was written by MTD to reflect the community's goals for improved transit service describes the requirements to meet these goals. The project components of the new and expanded transit service presented in this application were derived directly from the SCTP.

Congestion Management Plan (CMP)

The Westside/Eastside Shuttle and the Crosstown Shuttle are important elements of the City's CMP Deficiency plan to mitigate the heavy congestion levels experienced by motorists at the Highway 101/Mission Street interchange. By funding the Electric Avenue, SBCAG has the opportunity to implement a non-roadway capacity solution at substantial savings. The road project to restructure the Mission Interchange exceeds $20 million, while the Electric Avenue will be a long-term, sustainable solution at a fourth of the cost.

Project Supporters

- The Santa Barbara City Council, Santa Barbara Planning Commission, Carpinteria City Council, the Santa Barbara County Board of Supervisors and the MTD Board of Directors have endorsed this project.
- The Westside Community Group supports and endorses this project.
- The Santa Barbara Economic Community Project (ECP) recommends a high priority for transit projects with regard to both the Santa Barbara Circulation Element Update (CEU) and the Goleta Transportation Improvement Plan (GTIP).